

AMENDMENTS TO THE CLAIMS

The listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims

Claim 1 (Cancelled)

2. (Currently Amended) A method for processing image data, comprising the steps of:
shooting an object from different eye points so as to obtain a plurality of images;
extracting an object area that is a portion corresponding to the object from the images;
obtaining shoot condition data indicating the positional relationship between a camera and the object and an optical parameter concerning image formation when previously obtaining the images so as to extract the object area for each of the images sequentially and refer to a result of the extraction that is performed previously when performing the extraction about a second and subsequent images; and

estimating the object area in ~~one image~~ the second and subsequent images in accordance with the object area extracted from a previous ~~another~~ image and the shoot condition data of the ~~other previous~~ image.

3. (Currently Amended) A method ~~as recited in claim 2~~ for processing image data, comprising the steps of:

shooting an object from different eye points so as to obtain a plurality of images;

extracting an object area that is a portion corresponding to the object from the images;

obtaining shoot condition data indicating the positional relationship between a camera and the object and an optical parameter concerning image formation when obtaining the images;
and

estimating the object area in one image in accordance with the object area extracted from another image and the shoot condition data of the other image, wherein

the estimating step includes the steps of arranging the image to be processed and the other image to be used for the process virtually and in a three-dimensional manner in accordance with the shoot condition data, and estimating the object area by projecting a visual volume determined by the object area extracted from the other image and the shoot condition data onto the image to be processed.

4. (Currently Amended) A method ~~as recited in claim 2~~ for processing image data, comprising the steps of:

shooting an object from different eye points so as to obtain a plurality of images;

extracting an object area that is a portion corresponding to the object from the images;

obtaining shoot condition data indicating the positional relationship between a camera and the object and an optical parameter concerning image formation when obtaining the images;
and

estimating the object area in one image in accordance with the object area extracted from another image and the shoot condition data of the other image, wherein

the estimating step includes the steps of arranging the image to be processed and the other images to be used for the process virtually and in a three-dimensional manner in accordance with the shoot condition data, projecting a plurality of visual volumes determined by

the object areas extracted from the other images and the shoot condition data onto the image to be processed, and estimating the object area by determining an area where the projected images overlap one another.

5. (Currently Amended) A method ~~as recited in claim 2~~ for processing image data, comprising the steps of:

shooting an object from different eye points so as to obtain a plurality of images;

extracting an object area that is a portion corresponding to the object from the images;

obtaining shoot condition data indicating the positional relationship between a camera and the object and an optical parameter concerning image formation when obtaining the images;
and

estimating the object area in one image in accordance with the object area extracted from another image and the shoot condition data of the other image, wherein

the estimating step includes the steps of arranging the image to be processed and the other images to be used for the process virtually and in a three-dimensional manner in accordance with the shoot condition data, and estimating the object area by projecting an intersection portion among the plural visual volumes determined by the object areas extracted from the other images and the shoot condition data in the three-dimensional virtual space onto the image to be processed.

6. (Original) A method as recited in claim 2, further comprising the step of correcting the estimated object area by data processing about the image including the object area.

7. (Original) A method as recited in claim 2, further comprising the step of correcting the estimated object area by using color information of a background area that is a portion except the estimated object area.

8. (Currently Amended) An image data processor for extracting an object area that is a portion corresponding to an object from a plurality of images obtained by shooting the object from different eye points, the processor comprising:

an obtaining portion for obtaining shoot condition data indicating the positional relationship between a camera and the object and an optical parameter concerning image formation when previously obtaining the images so as to extract the object area for each of the images sequentially and refer to a result of the extraction that is performed previously when performing the extraction about a second and subsequent images; and

an estimating portion for estimating the object area in ~~one image~~ the second and subsequent images in accordance with the object area extracted from another image and the shoot condition data of the other image.

9. (Currently Amended) An image data processor ~~as recited in claim 8~~ for extracting an object area that is a portion corresponding to an object from a plurality of images obtained by shooting the object from different eye points, the processor comprising:

an obtaining portion for obtaining shoot condition data indicating the positional relationship between a camera and the object and an optical parameter concerning image formation when obtaining the images; and

an estimating portion for estimating the object area in one image in accordance with the object area extracted from another image and the shoot condition data of the other image,
wherein

the estimating portion arranges the image to be processed and the other image to be used for the process virtually and in a three-dimensional manner in accordance with the shoot condition data, and estimate the object area by projecting a visual volume determined by the object area extracted from the other image and the shoot condition data onto the image to be processed.

10. (Original) An image data processor as recited in claim 8, further comprising a correcting portion for correcting the estimated object area.

11. (Original) An image data processor as recited in claim 10, wherein the correcting portion has a function for displaying an image obtained by projecting the visual volume.

12. (Original) A method for modeling, comprising the steps of:
shooting an object from different eye points so as to obtain a plurality of images;
estimating a three-dimensional shape of the object in accordance with the images;
obtaining shoot condition data indicating the positional relationship between a camera and the object and an optical parameter concerning image formation when obtaining the images;
estimating an object area that is a portion corresponding to the object in one image in accordance with the object area extracted from another image and the shoot condition data of the other image;

arranging the images virtually and in a three dimensional manner in accordance with the shoot condition data; and

estimating the three-dimensional shape of the object in accordance with the object area extracted from the images and the shoot condition data.

13. (Original) A modeling device for estimating a three dimensional shape of an object in accordance with a plurality of images obtained by shooting the object from different eye points, the device comprising:

an obtaining portion for obtaining shoot condition data indicating the positional relationship between a camera and the object and an optical parameter concerning image formation when obtaining the images;

an estimating portion for estimating an object area that is a portion corresponding to the object in one image in accordance with the object area extracted from another image and the shoot condition data of the other image; and

an arranging portion for arranging the images virtually and in a three-dimensional manner in accordance with the shoot condition data and estimating the three-dimensional shape of the object in accordance with the object area extracted from the images and the shoot condition data.

14. (Original) A computer readable medium storing a program for modeling in which a three-dimensional shape of an object is estimated in accordance with a plurality of images obtained by shooting the object from different eye points, the program making a computer work as:

an obtaining portion for obtaining shoot condition data indicating the positional relationship between a camera and the object and an optical parameter concerning image formation when obtaining the images;

an estimating portion for estimating an object area that is a portion corresponding to the object in one image in accordance with the object area extracted from another image and the shoot condition data of the other image; and

an arranging portion for arranging the images virtually and in a three-dimensional manner in accordance with the shoot condition data and estimating the three-dimensional shape of the object in accordance with the object area extracted from the images and the shoot condition data.